



Dyson  
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SC Johnson College of Business

Cornell **CALS**  
College of Agriculture and Life Sciences

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# An overview of the economic implications of COVID-19 on food and agricultural markets

*Miguel Gómez and Bradley Rickard*

*Dyson School of Applied Economics and Management*

# We are witnessing both shortages and wasted production

New York Times, 4/11/2020

<https://www.nytimes.com/2020/04/11/business/coronavirus-destroying-food.html>



New York Times, 5/11/2020

<https://www.nytimes.com/2020/05/11/nyregion/Coronavirus-supermarkets-items-missing.html?searchResultPosition=2>



# Polling questions to fresh produce industry businesses

1. What parts of your supply chain are more at risk? What challenges are you facing?
  - Foodservice shutdown
  - Securing seasonal labor
  - Procuring direct materials, packing facilities
  - Health of workers in all segments
  - Managing inbound deliveries and spikes to avoid contagion among workers
  
2. Do you actively communicate with your customers and suppliers?
  - Overwhelmingly YES, crisis has sparked increased communication to manage disruptions – e.g. volume caps, product re-purposing, quality, etc.
  - Frequent communication to manage uncertainty

# Polling questions to fresh produce industry businesses

3. Have you made innovations due to COVID? For example, adapting to new products or new channels of selling your products or developing an online business model?
  - Initiated or ramped-up online channel
  - Grocery store – restaurant collaborations
  - Consumer box for retailers to minimize handling
  - Product assortment – from fancy to basics; bagging
  - Modified production lines and enhanced cleaning protocols
  - Wholesalers re-purposing product from food service to grocery stores
  - Weekly COVID meetings; School nutritional programs
4. Please describe any other questions or comments.
  - Realization the “we are in this together” even when we compete
  - Huge educational and training efforts to face new reality
  - Need tools to assess risk in the food supply chain in the future
  - Multiple concerns: increased consolidation, increased costs, lower consumer income
  - Need to ramp-up automation efforts at all levels of supply chain

# Impact of COVID-19: U.S. Monthly Retail Trade for March-April 2020 compared to March-April 2019

Type of retail	March 2020	April 2020
Retail and food services, total	-5.7%	-19.9%
Grocery Stores	30.9%	13.2%
Health and personal care stores	5.3%	-9.9%
Pharmacies and drug stores	11.7%	0.1%
Gasoline stations	-18.1%	-39.3%
Other general merchandise stores	18.6%	3.7%
Warehouse clubs and superstores	15.3%	3.0%
E-commerce	16.6%	28.7%
Fuel dealers	- 22.7%	-21.1%
Food service and drinking places	- 26.7%	-52.6%



# Impact of COVID-19: Trends and Observations

## Consumer shopping habits

- Switch to online & direct shopping models
- Increased switching between brands
- From fancy to basic foods
- Increase in groceries consumption, decrease in food service industry
- Lower frequency of store visits
- Change in seasonality of products (baked goods, soups, etc.)

## Grocery Retailing

- Workforce safety
- Redesign of stores and workflow
- Uncertain supply
- Increased demand
- Increased procurement costs
- Packaging switches needed to adapt to demand

# Disruptions to the “Food System”

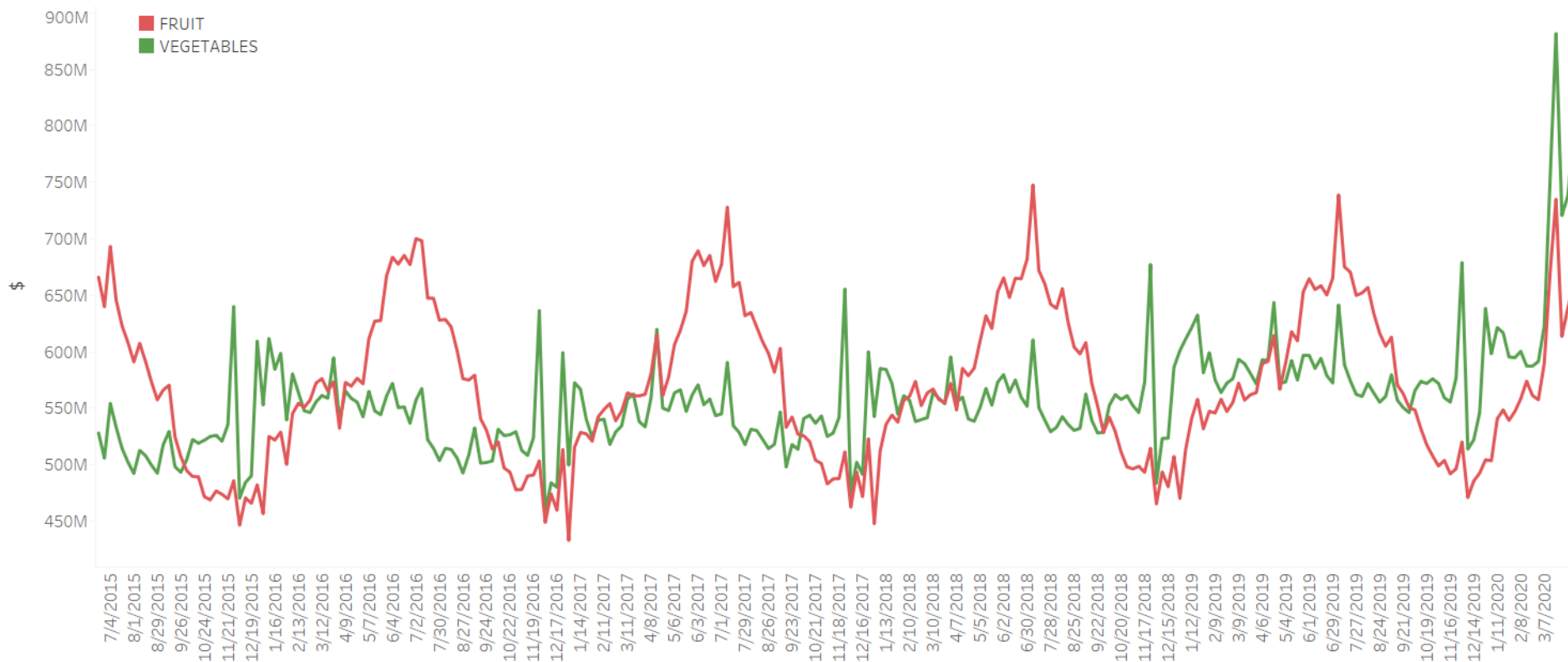
- We are learning very quickly that there really is not a “food system”, but rather:

“multiple criss-crossing supply chains, some connected, some not.”

(Rachel Laudan)



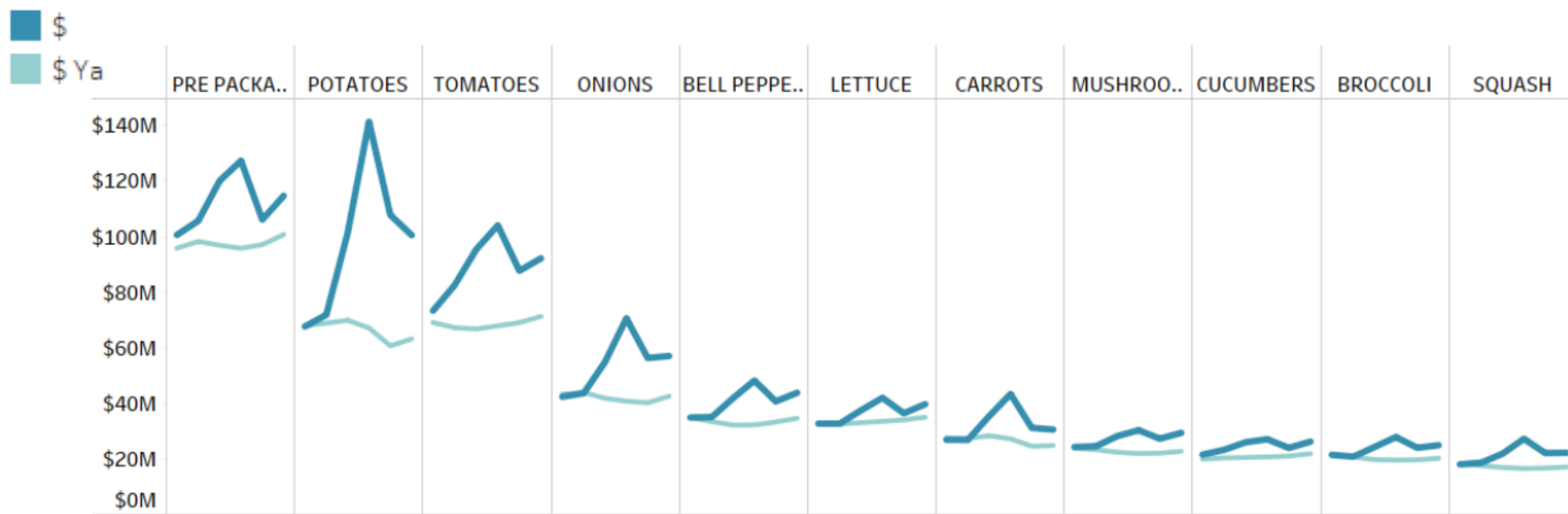
# U.S. Monthly Retail Sales of Fruits and Vegetables: July 2015 to March 2020



Source: Retail Fresh Foods and COVID-19, Category Partners.

<https://www.categorypartners.com/webinar-04-22-2020/>

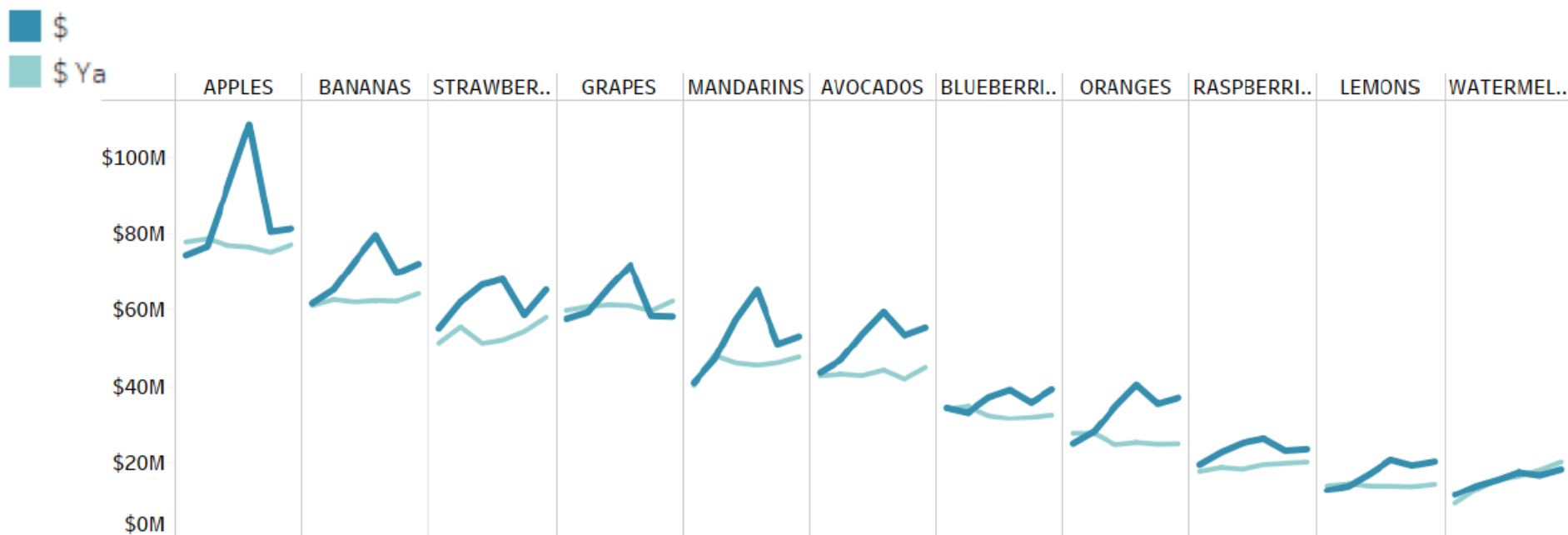
# Changes in U.S. Retail Sales of Vegetables: March to June 2020



Source: Retail Fresh Foods and COVID-19, Category Partners.

<https://www.categorypartners.com/webinar-04-22-2020/>

# Changes in U.S. Retail Sales of Fruits: March to June 2020



Source: Retail Fresh Foods and COVID-19, Category Partners.

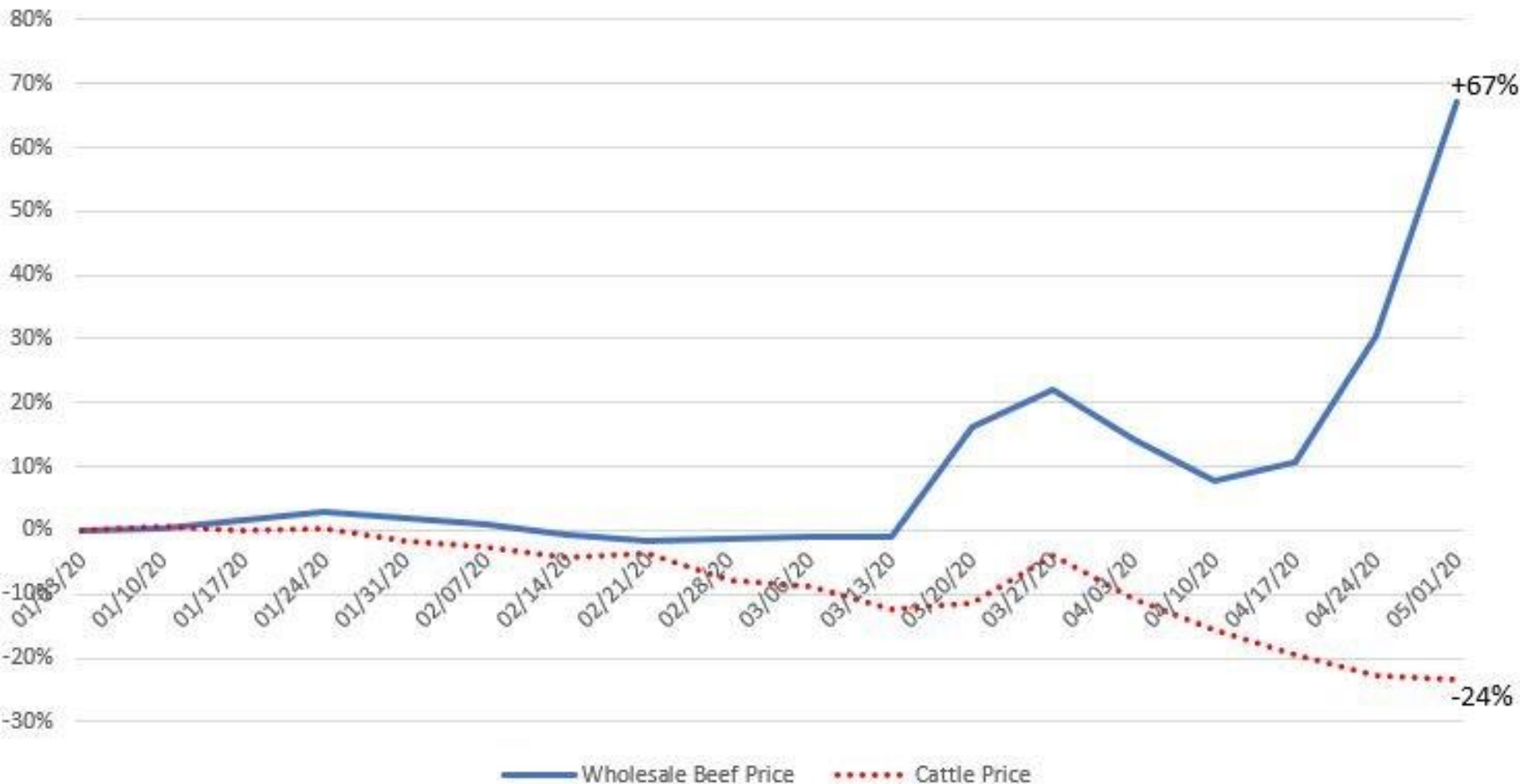
<https://www.categorypartners.com/webinar-04-22-2020/>

# COVID-19 affects the supply, too:

Why we see lower farm prices and higher consumer prices

- We are also seeing major disruptions on the supply side in U.S. (and international) food and agricultural markets
- Big issues: Lower labor supply and less processing capacity if/when workers become ill
- When we see a smaller labor supply or a decrease in processing plant capacity, it causes costs the cost of processing to increase and therefore increases the final cost of the product to consumers
  - Consumer prices rise!
- At the same time, a decrease in processing capacity or an increase in processing costs dampens the derived demand for farm crops/livestock, and this decreases prices for agricultural producers
  - Farm prices fall!
- This has been very evident in meat markets in May 2020 and many fear that this could also happen in other sectors that depend on labor and involve substantial processing (F&Vs)

## Change in Farm and Wholesale Beef Prices Since 1st of January



Source: Beef marketing margins, May 4, 2020. <http://jaysonlusk.com>

# COVID-19 and Specialty Crop Markets

*Elizabeth Higgins, Cornell Cooperative Extension Specialist  
Eastern NY Commercial Horticulture Team*

*Miguel Gómez and Bradley Rickard*

*Dyson School of Applied Economics and Management*

# Observations from Eastern NY for Fruit and Vegetable Markets

Some farms reported “the best spring in years” as sales of produce at local farmers markets and purchase of CSA shares soared after years of declining numbers. Wholesale apple and onion farms with product in storage also reported strong sales.

Farmers Markets were quick to establish COVID-19 safety procedures in order to stay open. Cornell, Grow-NYC, and the NYS Farmers Market Federation all worked with Ag and Markets to establish guidelines and ensure that the markets were designated as essential.



The screenshot shows the Cornell CALS Small Farms Program website. The header includes the Cornell CALS logo, a search bar, and navigation links for About, Projects, Courses, Resources, News, Events, Quarterly, and Contact. The main content area features a breadcrumb trail: Home » Posts » COVID-19 Update for Farmers' Markets Operators and Vendors. The title of the post is "COVID-19 Update for Farmers' Markets Operators and Vendors", dated March 31, 2020, by Kacey Deamer. The post content includes a link to "Interim Guidance for Horticulture and Seafood from NYS Ag & Markets" and a paragraph stating that the New York State Department of Agriculture and Markets released this guidance on March 31, 2020. It also mentions that this guidance is provided for farmers' market operators and vendors in response to the COVID-19 public health emergency. A "Background:" section follows, detailing the discovery of COVID-19 in December 2019 and the issuance of Executive Order 202.8 by Governor Cuomo on March 20, 2020, which designated farmers' markets as essential businesses.



# Observations from Eastern NY for Fruit and Vegetable Markets

[Home](#)

[About](#)

[Shop](#)

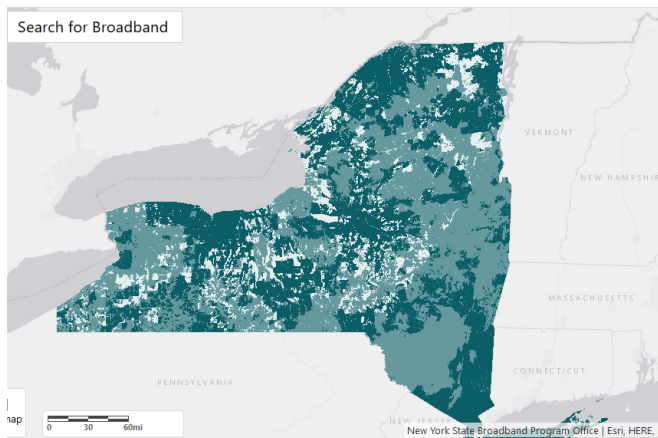


[Newsletters](#)

## ABOUT



**IN RESPONSE TO THE COVID-19 CRISIS, FOX CREEK FARM IS MAKING HOME DELIVERIES.**



Many farms were quick to adapt to local delivery, pick-up of bagged produce at farm-stands and on-line ordering.

But farms have also struggled with slow internet, outdated websites, learning curve with on-line sales and marketing. Transition favored farms who were more experienced with these sales methods.

CCE/Cornell and others have been providing information about best practices in on-line sales.

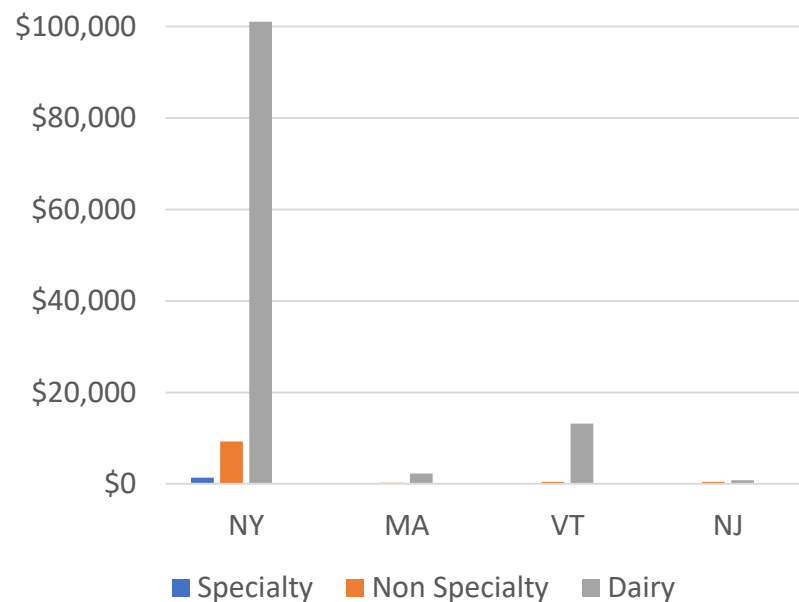
# Federal Disaster Assistance

- PPP and EIDL were useful for fruit and vegetable farms in NYS.
- The CFAP Program – not as much.

	NY	MA	NJ
#	24	2	4
Pmts.	\$1.4M	\$3.9K	\$0

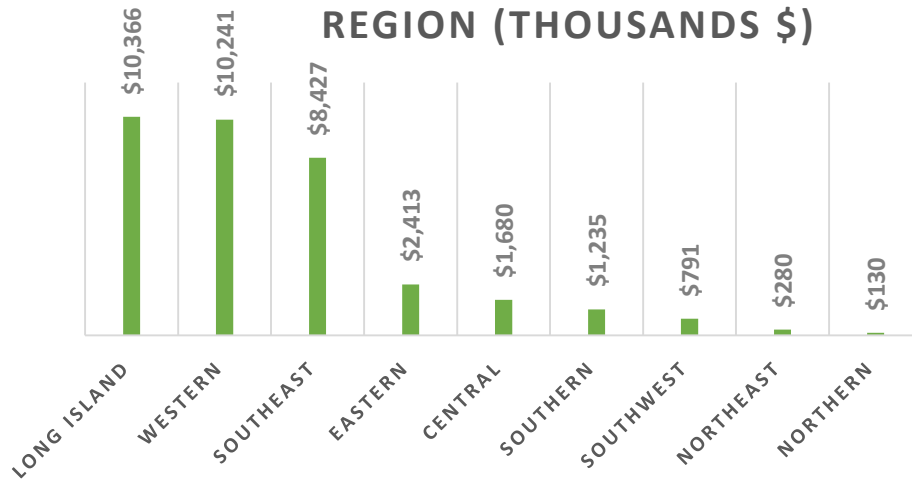
As of June 22, 2020

CFAP by Commodity



# Observations from Eastern NY for Fruit and Vegetable Markets

2017 AGRITOURISM RECEPTS BY NYS REGION (THOUSANDS \$)



Agritourism is an important source of income for many farms, especially farms on the “urban fringe”

Over 800 farms have agritourism ventures, generating over \$36 million in farm income.

Many of these may not be able to operate open this season

2017 Census of Agriculture, USDA

# Likely effects for F&V demand and distribution

- Incomes decreasing and price of food likely to increase slightly – i.e. from “fancy” to “basic”
  - Need to strengthen food assistance programs (e.g. Food Banks)
- Food hubs sourcing local/regional foods and delivering to households likely to grow
  - Invest in the growth of these emerging supply chains
- Demand for F/V in Dollar Stores and Hard Discounters (e.g. ALDI) likely to increase
  - Identify strategies to increase the presence of NYS grown products in these retail outlets

# Likely effects for F&V demand and distribution

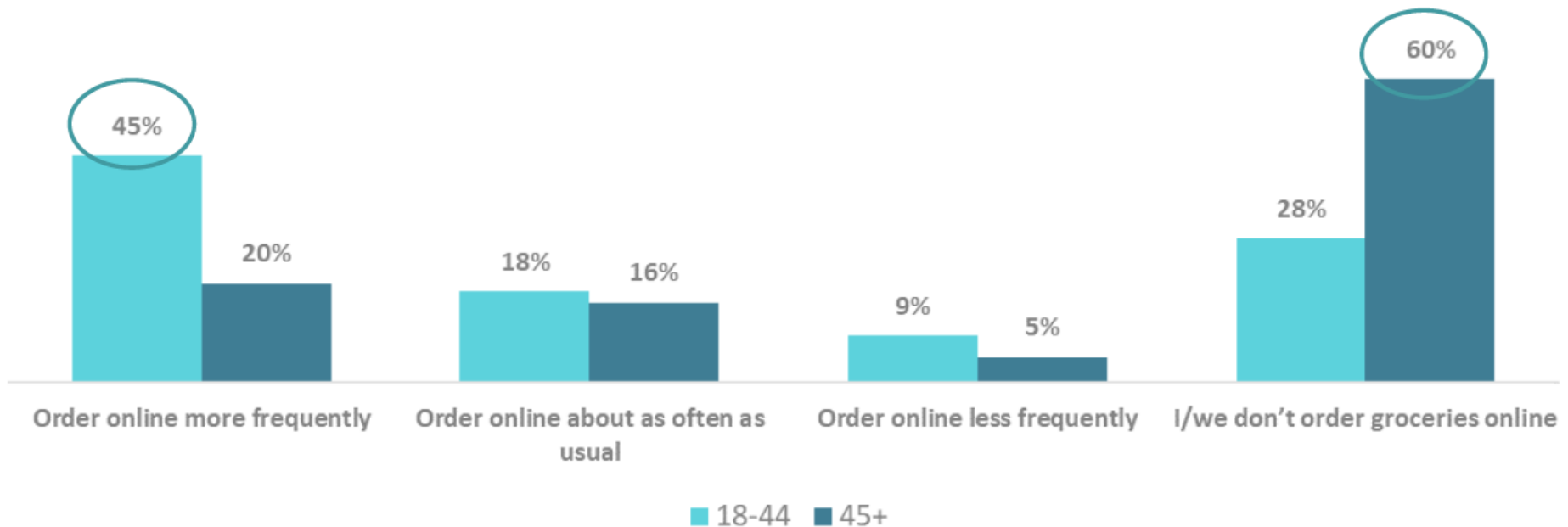
- Increased cross-channel collaborations and partnerships:
  - Between restaurants and local food stores
  - Between supermarket supply chains, wholesale food supply chains, and food banks
- Product repackaging
- Supply chain diversification
- Technological solutions
  - Online marketplaces for companies to collaborate
  - Speed up automation initiatives at various segments of the supply chain
  - Data-sharing technologies to increase vertical supply chain coordination
  - Technologies supporting novel uses of surplus food to avoid waste

# Additional thoughts on the likely effects for NYS fruit and vegetable markets

- COVID-19 will not affect all NYS F&V markets in the same way, and it will not affect all producers in the same way
  - Perishability/storability
  - Labor requirements
  - Macroeconomic conditions
  - Likelihood to see a major shift to online grocery sales
- For annual vegetable producers in particular, there is a limited window to consider the trade-offs for producing different crops
  - Coordination and sharing information among vegetable producers
- This appears to be a great opportunity for small farmers and farm market vendors to gain further access to local and regional markets
  - Assistance with developing and facilitating online sales

# Recent changes in online food purchases: April 2020

Changes in frequency of online grocery shopping



Source: Retail Fresh Foods and COVID-19, Category Partners.

<https://www.categorypartners.com/webinar-04-22-2020/>



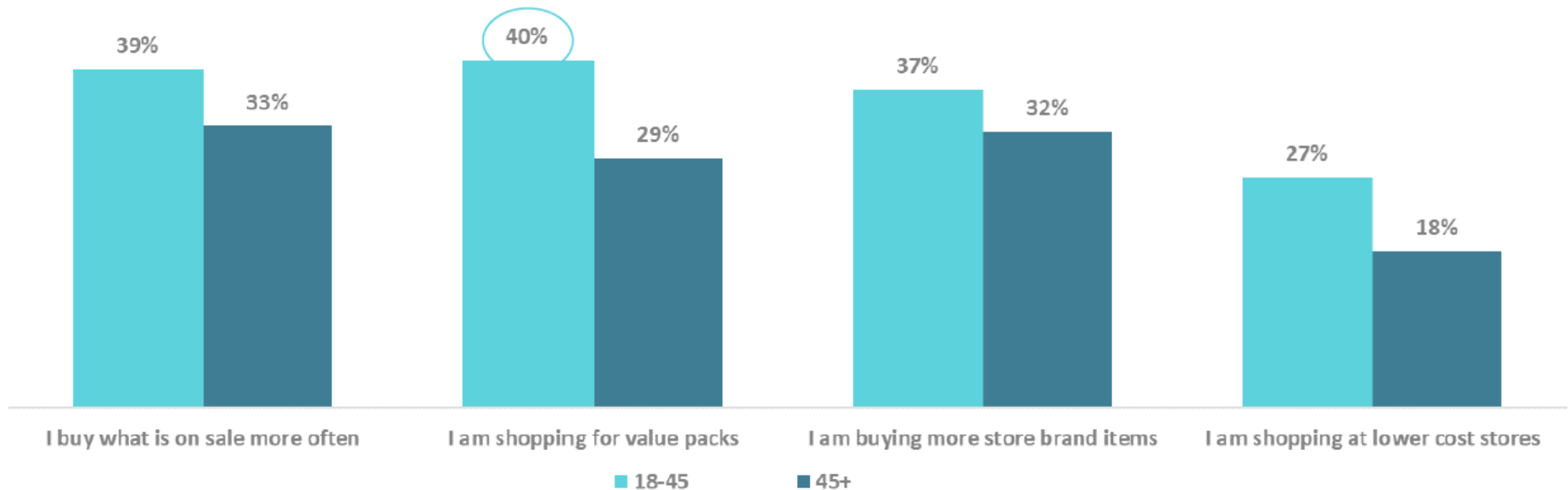
# Changing consumer “Food Values” during the pandemic

We have conducted our own survey work during March-June 2020 asking a large panel of consumers (~4500 subjects) questions about food purchases, food waste, and five “Food Values”

- **Price**: more/less important
- **Nutrition**: much less important
- **Taste**: less important
- **Storage**: more important
- **Ease of use**: much more important

# Shift towards value

As a result of the Coronavirus quarantine, have you changed the way you shop for food?



Source: Retail Fresh Foods and COVID-19, Category Partners.

<https://www.categorypartners.com/webinar-04-22-2020/>

# Farmers and Farm Employees: Protecting Public Health and Food Supplies

*Richard Stup, Ph.D.,*

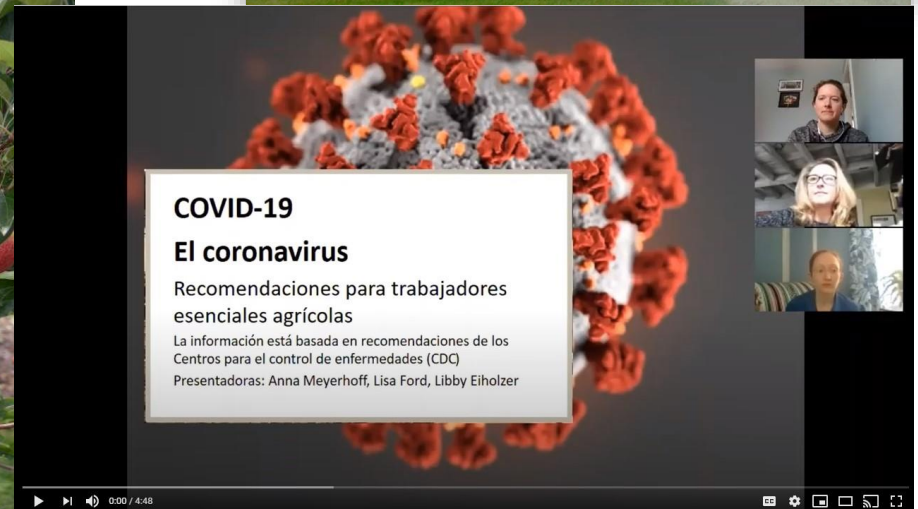
*Cornell Agricultural Workforce Development*

[rstup@cornell.edu](mailto:rstup@cornell.edu)

[Agworkforce.cals.cornell.edu](http://Agworkforce.cals.cornell.edu)

# COVID-19 Challenges for Farms and Employees

- Management change & risk avoidance
- Planning to fight an outbreak
- Securing a sufficient workforce



# Active Lawsuits

WESTLAW NEWS MAY 22, 2020 / 5:12 PM / 4 DAYS AGO

## IN BRIEF: Tyson hit with wrongful death claims after meat cutter dies from COVID-19

Daniel Wiessner

1 MIN READ



The family of a meat cutter at a Tyson Foods Inc plant in Texas who died of complications from COVID-19 has filed a lawsuit claiming the company's "callous disregard" for worker safety has caused the deaths of at least 18 employees.

From Reuters:

## Estate of Walmart worker who died from COVID-19 sues for wrongful death

Daniel Wiessner

3 MIN READ



(Reuters) - The family of a Walmart Inc employee in Illinois who died after contracting COVID-19, the illness caused by the novel coronavirus, has filed a lawsuit accusing the retail giant of failing to adequately screen and protect workers.



FILE PHOTO: Walmart shopping carts are seen in the parking lot in Chicago, Illinois, U.S. November 27, 2019. REUTERS/Kamil Krzaczynski/File Photo



# Coronavirus cluster investigated at Oswego apple-packaging facility

Updated Jun 16, 2020; Posted Jun 15, 2020



Oswego County Medical Director Dr. Christina Liepke said the employer is cooperating with the health department and has complied state-established Covid-19 guidelines, including employee social distancing and providing hand sanitizer.

“It appears this cluster was initially transmitted through community spread,” said Oswego County Legislature Chairman Jim Weatherup. “Our health department is working closely with the New York State Health Department to ensure all necessary testing, tracing and control measures are in place to effectively control its spread.”

The Champlain Valley Specialty of NY Inc. facility on Route 104 in Oswego.



By [Nolan Weidner | nweidner@syracuse.com](#)

Oswego, N.Y. — Seven workers at the Town of Oswego have tested positive for what Oswego County officials are describing as a new cluster.

“Champlain Valley Specialty is currently working in tandem with the New York State Department of Health and the Oswego County Health Department as we remain diligent in ensuring the well-being of our employees, their families and the communities in which we operate,” the company said in a statement issued Monday night.

# Actions to Reduce Risk

1. Check your liability insurance coverage and understand it.
2. Follow guidance of government authorities.
  - Government rules, orders and recommendations be evidence of the required standard of care.
3. Train employees.
  - What actions to take and why.
  - How to respond to questions.
4. Follow up to ensure compliance.
  - Face coverings, hand washing; social distancing; workplace and housing sanitation; customer safety.

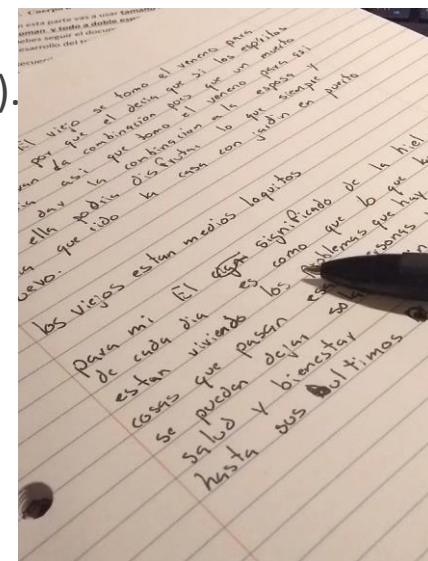
Source: National Law Review: <https://www.natlawreview.com/article/re-opening-economy-and-getting-back-to-business-business-owners-liability-risk-when>





# 5. Document Your Decision-Making

- Document decision-making and actions regarding COVID-19-related practices and compliance requirements and recommendations.
  - Changing guidance? Document your decisions and actions.
  - Guidance not practicable or possible? Document why. (Example, difficulty obtaining proper PPE and efforts to acquire it).
- Documentation methods
  - Professional, timely notes with dates, names, and places.
  - No gossip or name-calling, your notes could end up in court.
  - Can be paper or computerized.
  - Maintain employee confidentiality.



Source: <https://www.pillsburylaw.com/en/news-and-insights/employer-reopening-covid-19.html>

# CCE's NY Forward Business Safety Plan Support for Farms

- Written plan required by New York, also a good way to document your actions
- <https://agworkforce.cals.cornell.edu/ny-forward-business-safety-plan/>
- Resources on the website, include:
  - Blank templates in various formats
  - Considerations and examples for your plan
  - Key references and support documents

A vertical graphic with a red background on the left and a photo of an apple tree on the right. The text is white and yellow. It includes the Cornell University seal and a call to action to register for a webinar.

**ALERT:**  
**WEBINAR SERIES-**  
**NYS Business**  
**Safety Plan Resources-**  
**ALL BUSINESSES**  
**MUST COMPLETE!**

See **industry specific** resources & tips for completing your farm's plan NOW!

Click the Link to Register TODAY

June 11th, 2020 12:00PM

@cornellagworkforcedevelopment  
Cornell Cooperative Extension

# Planning to Fight Any Outbreaks

- Even as upstate re-opens we cannot relax
- CCE and NYFB Farm Employee Housing Action Plan: Quarantine, Isolation, Care
- Producers should reach out proactively to county health departments
- Testing



# **“Never give in. Never, never, never.”**

-Winston Churchill, Prime Minister of the  
United Kingdom, 1940-1945.



# View the following Cornell CALS and CCE Resource Pages Updated Regularly

## General Questions & Links:

- <https://eden.cce.cornell.edu/>

## Food Production, Processing & Safety Questions:

- <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/>

## Employment & Agricultural Workforce Questions:

- <http://agworkforce.cals.cornell.edu/>

## Cornell Small Farms Resiliency Resources:

- <https://smallfarms.cornell.edu/resources/farm-resilience/>

## Financial & Mental Health Resources for Farmers:

- <https://www.nyfarmnet.org/>

## Information for Farm Employees Including Spanish & Mam Language videos on COVID-19:

- <https://www.trabajadores.cornell.edu/> and [www.farmworkers.cornell.edu](http://www.farmworkers.cornell.edu)





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# Thank you for your attention!

## Questions or Comments are welcome

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